Attorney Docket: 3365.US.P Hughes, et al.

S/N: 09/824,241

In the Claims

1. (currently amended) A method of controlling an allocation of packet transmission priority to TCP transport control protocol (TCP) packets within a switch to transmit the packets thereover, said method comprising:

- a) determining whether a packet passing through said switch to be transmitted is a TCP control packet by checking flag bits within a TCP header of the packet and establishing if any flag other than a PSH flag bit is set;
- b) assigning by the switch, within the packet, a packet transmission priority to such determined TCP control packets that is different to the priority of TCP data packets that such TCP control packets control, wherein an increased priority of packet transmission, relative to other packets having a PSH flag bit set, is assigned to the packet if a flag bit other than the PSH flag bit is set.

2. - 3. (cancelled)

4. (currently amended) A switch including:

logic for snooping a TCP transport control protocol (TCP) header in a TCP packet being transmitted through said switch and establishing whether said TCP packet is a TCP control packet, in which the logic checks flag bits within the TCP header and establishes whether any flag other than a PSH flag bit is set; and

means for assigning, within the packet, a packet transmission priority to said TCP packet dependent on whether it is a TCP control packet, wherein

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an increased packet transmission priority is allocated to TCP packets having a flag bit other than the PSH flag bit set.

5. - 6. (cancelled)

7. (currently amended) A switch for the reception and transmission of TCP transport control protocol (TCP) packets passing through said switch including both control packets and non-control packets each having a header conforming to the Transport Control Protocol (TCP), said switch including:

a multiplicity of ports for receiving and transmitting said TCP packets passing through said switch;

means for allocating a packet transmission priority to TCP packets within said switch as they are being transmitted;

means for checking flag bits within the header of each of said TCP packets to determine whether a given TCP packet is a TCP control packet, said means for checking including logic for snooping the header of each of said TCP packets to establish whether any flag in said header other than a PSH flag bit is set; and

means for assigning, within the packet, a packet transmission priority to said given TCP packet passing through said switch dependent on whether it is a TCP control packet, wherein an increased packet transmission priority is allocated to TCP packets having a set flag bit other than said PSH flag bit.

8. (cancelled)